

AG/ 2833  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

Reuven Lavie

Serial No.: 10/644,416

Filed: August 20, 2003

For: Reducing Cross Talk  
at Ethernet Connectors

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Art Unit: 2833

Examiner: Renee S. Luebke

Atty Docket: ITL.1000US  
P16572

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**SUPPLEMENTAL APPEAL BRIEF**

This Supplemental Appeal Brief is being filed in response to the Notice of Non-Compliant Brief mailed on November 16, 2004.

Date of Deposit: December 10, 2004

I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as **first class mail** with sufficient postage on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*Cynthia L. Hayden*  
Cynthia L. Hayden

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### **REAL PARTY IN INTEREST**

The real party in interest is the assignee Intel Corporation.

**RELATED APPEALS AND INTERFERENCES**

None.

### **STATUS OF CLAIMS**

Claims 1-8 and 10-24 are rejected. Each rejection is appealed.

## **STATUS OF AMENDMENTS**

All amendments have been entered.

## **SUMMARY OF CLAIMED SUBJECT MATTER**

Claim 1 calls for capacitively coupling a pair of terminals of an Ethernet connector to reduce cross talk. This is best seen in Figure 3 where the terminals are marked 75 and the capacitive coupling is indicated by 85. See page 5 of the specification, line 1, through page 6, line 5.

The claim also calls for an Ethernet connector. An Ethernet connector is explained in the detailed description at page 3, lines 10-18. See the portion of the Ethernet Specification, attached. The document explains that Ethernet connectors are a recognized term of art and must comply with specific requirements. See the Evidence Appendix at pages 1-3.

At this point, no issue has been raised that would suggest that the words in the claims have any meaning other than their ordinary meanings. Nothing in this section should be taken as an indication that any claim term has a meaning other than its ordinary meaning.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

- A. Are Claims 1-7 Anticipated by Paulson?**
- B. Are Claims 8-16 Anticipated by Paulson?**
- C. Is Claim 17 Anticipated by Paulson?**
- D. Are Claims 20-24 Obvious Over Paulson?**



## ARGUMENT

### **A. Are Claims 1-7 Anticipated by Paulson?**

One issue is whether Paulson teaches an Ethernet connector as claimed. Paulson does not relate to an RJ-45 type of connector.

The office action cites the material in the specification at page 1. That material, specifically at page 1, lines 10-12, is not specific to Ethernet connectors, but simply refers to types of connectors that can connect network nodes. Moreover, if it were to refer to Ethernet connectors, the phrase “standard connectors” would refer to those connectors that are standard for Ethernet. In other words, there is no reason, even under such an interpretation, to read “standard” as relating to a standard other than Ethernet when Ethernet connectors are involved.

As indicated in the attached document relating to Ethernet connectors, Ethernet connectors must comply with specific requirements. See Evidence Appendix at pages 6-8. Thus, “Ethernet connector” cannot legitimately be equated to cover any connector. In other words, it is improper to simply read Ethernet out of the claim.

Thus, there is simply no reason to believe that any connector can be utilized in Ethernet. Ethernet requires a specific type of connector, that connector is claimed, and the cited reference has no such thing.

Therefore, the rejection of claims 1-7 should be reversed.

Nothing in Paulson in any way suggests any of the limitations in dependent claims, such as dependent claims 3 and 4.

“Ethernet terminals” are structure. An Ethernet terminal is one that can be utilized pursuant to the Ethernet standard. It does not refer to any terminal because to do so would simply read the word Ethernet out of the claim.

Therefore, the rejections of claims 3 and 4 should also be reversed.

Again, it is improper to simply read the word Ethernet out of the claims. There is absolutely no statutory basis for doing so.

**B. Are Claims 8-16 Anticipated by Paulson?**

Claim 8 calls for a non-conductive housing having a jack and terminals to contact mating Ethernet connectors. No office action to date has indicated where such elements could possible be found within Paulson.

Therefore, a *prima facie* rejection is not made out and the rejection should be reversed.

**C. Is Claim 17 Anticipated by Paulson?**

Claim 17 calls for an Ethernet connector having terminals wherein a selected pair of terminals are capacitively coupled to non-adjacent terminals.

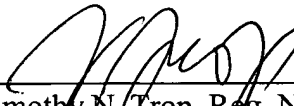
Again, the rejection of claim 17 is based on the idea of simply reading an "Ethernet connector" to be any connector. Only by reading out Ethernet before connector is a *prima facie* rejection made out. Since this is impermissible, the rejection should be reversed.

**D. Are Claims 20-24 Obvious Over Paulson?**

For the reasons set forth above with respect to claims 1-7, the rejection should be reversed.

Respectfully submitted,

Date: December 10, 2004

  
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Timothy N. Trop, Reg. No. 28,994  
TROP, PRUNER & HU, P.C.  
8554 Katy Freeway, Ste. 100  
Houston, TX 77024  
713/468-8880 [Phone]  
713/468-8883 [Fax]

## CLAIMS APPENDIX

The claims on appeal are:

1. A method comprising:  
capacitively coupling a pair of terminals of an Ethernet connector to reduce cross talk.
2. The method of claim 1 further including:  
coupling a first capacitor between a first pair of terminals and coupling a second capacitor between a second pair of terminals.
3. The method of claim 1 further including:  
coupling a capacitor between the terminals coupled to B+ and C- channels.
4. The method of claim 3 including coupling a capacitor between the C+ and B- channels.
5. The method of claim 1 including coupling an adjacent channel to a non-adjacent channel by a capacitor.
6. The method of claim 1 including coupling a capacitor between complementary channels.
7. The method of claim 1 including reducing near end cross talk by capacitively coupling non-adjacent channels.
8. A network connector comprising:  
a non-conductive housing having a jack;  
a plurality of Ethernet terminals to receive Ethernet network signals;  
a first capacitor to couple a first pair of said Ethernet terminals; and

a second capacitor to couple a second pair of said Ethernet terminals, said terminals to contact mating Ethernet connectors.

10. The network connector of claim 8 wherein said first pair of terminals include terminals to receive B+ and C- channels.

11. The network connector of claim 10 wherein said second pair of terminals include terminals to receive the C+ and B- channels.

12. The network connector of claim 8 wherein said first pair of terminals are coupled to complementary channels.

13. The network connector of claim 12 wherein said second pair of said terminals are coupled to complementary channels.

14. The network connector of claim 8 wherein said connector is an Ethernet connector.

15. The network connector of claim 14 wherein said network connector is a fast Ethernet connector.

16. The network connector of claim 14 wherein said network connector is a Gigabit Ethernet connector.

17. A network adapter comprising:  
an Ethernet connector having terminals, wherein a selected pair of terminals are capacitively coupled to non-adjacent terminals.

18. The network adapter of claim 17 further comprising:  
a network interface card; and  
Ethernet networking circuitry located on said network interface card to enable a multi-Gigabit Ethernet connection over a network.
19. The network adapter of claim 18 wherein said Ethernet connector including:  
a first capacitor to couple a first pair of said terminals to receive first channel signals and a second capacitor to couple a second pair of said terminals to receive second channel signals.
20. A processor-based system comprising:  
a processor; and  
a network adapter coupled to said processor, said network adapter including an Ethernet connector having terminals, wherein a pair of said terminals are capacitively coupled.
21. The processor-based system of claim 20, said connector further comprising:  
a first capacitor to couple a first pair of said terminals that are non-adjacent and a second capacitor to couple a second pair of terminals that are non-adjacent.
22. The processor-based system of claim 21 further comprising:  
a network interface card coupled to said processor; and  
Ethernet networking circuitry located on said network interface card to enable a multi-Gigabit Ethernet connection over a network.
23. The processor-based system of claim 22 wherein said Ethernet networking circuitry including:  
a first capacitor to couple a first pair of said terminals and a second capacitor to couple a second pair of said terminals of said channels.
24. The processor-based system of claim 23 wherein said first and second capacitors to reduce near end cross talk.